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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,795	07/24/2001	Luc Ouellet	11672-US	2984

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EXAMINER	
VINH, LAN	

ART UNIT	PAPER NUMBER
1765	

DATE MAILED: 03/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

Office Action Summary	Application No.	Applicant(s)	
	09/910,795	OUELLET ET AL.	
	Examiner	Art Unit	
	Lan Vinh	1765	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *1/26/2004* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-6 and 8-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-6,8-31* is/are rejected.

7)☒ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *032204* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Response to Amendment

1. Applicant's arguments, see the page 6 of the remarks, filed on 1/26/2004, with respect to claim 1 have been fully considered and are persuasive. However, upon further consideration, a new ground of rejection is made in view of the Quellet et al (US 6,602,791) reference. A discussion of the rejection follows.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 11-31 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-42 of U.S. Patent No. 6,602,791. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1, 11-31 differ from claims 1-42 of US 6,602,791 by claiming forming a continuous micro-channel from a series of communicating cavites. The claims in US 6,602,791 discloses forming a micro-channel

from a bore. Since the broader claim in US 6,602,791 reads on the series of communicating cavites of the present invention, therefore the present claims and US 6,602,791 are not patentably distinct. The following table will compare the claims between US 6,602,791 and the present invention.

Present invention	US 6,602,791
1, 11, 15, 16, 17, 27, 28	1
12, 13, 14	3, 4, 5
18, 19	14
20, 21	27, 41
22, 23, 24, 25, 26	29, 30, 31, 32
29, 30	31, 32
31	11

3. Claims 3-6 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,602,791 in view of Levine et al (US 5,902,165)

Claim 1 of US 6,602,791 meets all the limitation of the instant claimed inventions as per claims 3-6 except the claimed specific sizes of the hole/opening and distance between the hole.

However, Levine discloses a method of forming semiconductor device having cavities comprises the step of forming apertures/openings 26 having diameters of 1.0-1.4 microns at 3 microns aperture pitch/distance (col 5, lines 65-67)

Hence, one skilled in the art would have found it obvious to modify claim 1 of US 6,602,791) by forming the micro-channel/hole having the specific diameter and distance as taught by Levine because according to Levine self-alignment techniques can be used in obtain initial alignment of the subcavities with aperture having the specific sizes (col 5, lines 3-9)

4. Claims 8, 10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,602,791 in view of Haller et al (US 6,004,832)

Claim 1 of US 6,602,791 meets all the limitation of the instant claimed inventions as per claims 8, 10 except the claimed T-shaped pattern and T-shape micro-channel

Haller disclose a method for fabricating a semiconductor device comprises the step of forming a pattern of holes and etching through the holes to form T-shaped micro-channel (col 3, lines 8-10, fig. 1B and 1C)

Since claim 1 of US 6,602,791 requires forming a sacrificial layer, one skilled in the art would have found it obvious to modify claim 1 of US 6,602, 791 by forming a forming a pattern of holes and etching through the holes to form T-shaped micro-channel to provide access to the sacrificial layer as taught by Haller (col 4, lines 8-10)

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lan Vinh whose telephone number is 571 272 1471. The examiner can normally be reached on M-F 8:30-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on 571 272 1465. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LV
March 22, 2004